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ABSTRACT

This monograph, part of a series about the development of reading processes, focuses on the research about social class and ethnic group differences in learning to read. Among the topics discussed are considerations in the interpretation of research findings, genetic versus environmental explanations of the relationship between socioeconomic status and reading, and intervention-program evaluations and experimental studies concerning socioeconomic status and differences in reading ability. Attention is given to those experimental studies that evaluate expectations of success and language development factors. In addition, dialect-related problems in reading are discussed as they relate to linguistic and social differences associated with dialect usage, to proposed means of teaching the speaker of nonstandard English, and to other methods for exploring dialect differences in reading. A list of references completes the booklet. (KS)

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SOCIAL CLASS AND ETHNIC GROUP DIFFERENCES IN LEARNING TO READ

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Foreword

It is particularly fitting that the International Reading Association should publish this *Series on the Development of the Reading Process* for the volumes in this series exemplify the value of reading—the value of the printed word. The Series originated in a four-week summer institute at the University of Delaware. Those fortunate people who were able to participate in the institute counted it an enriching experience. How does one share such an experience at a reasonable cost with thousands of others who will wish they might have been present to participate? Through the medium of print. In this IRA series, participation in that unusual institute is available to all interested readers.

The volumes in this series represent more than just a series of papers presented at the institute. They incorporate ideas raised in the discussions at the institute and new developments interpreted through perspectives engendered by the institute.

This *Series on the Development of the Reading Process* deals with important basic issues that are fundamental to understanding the changing nature of the reading process as both the process and the child develop. In the literature on reading, these issues—such as the development of the child's cognitive abilities, the development of the child's semantic system, the child's changing conceptions of language, and the developing relation between listening and reading—are often referred to knowingly as if they are well understood or as if mere reference to them will prove a point. In this series, however, each volume deals with one such basic issue in a comprehensive way and specifically in relation to learning to read.

The person with the vision to develop the institute and with the wisdom and commitment to see that the fruits of the institute were made available to others is Frank B. Murray, editor of this series. The International Reading Association and all who value a deeper understanding of the development of the ability to read are indebted to him for his vision and his labor.

WALTER H. MACGINITIE

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The International Reading Association attempts, through its publications, to provide a forum for a wide spectrum of opinion on reading. This policy permits divergent viewpoints without assuming the endorsement of the Association.

Preface

During the summer of 1974, the Society for Research in Child Development with the support of the Grant Foundation of New York sponsored a four week interdisciplinary institute at the University of Delaware on Reading and Child Development. The thirty-three institute faculty were researchers in the disciplines of psychology, psychiatry, education, linguistics, neurology, sociology, and the law. Each spent from three to five days at the institute formally and informally presenting the applications of their research to the field of reading.

The institute participants were advanced doctoral students and postdoctoral faculty from various disciplines who had an interest and commitment to research in reading. They were present for the full four weeks, and some of them are contributing authors to this IRA series on *The Development of the Reading Process*. Each title in the series is based upon aspects of the institute proceedings, intensive discussions between the participants and the faculty, and each author's particular perspective.

The series is organized around the notion that the child's reading behavior, among other things, is a developmental phenomenon. This means that, like other developmental phenomena, there are certain necessary and sufficient conditions for it and that it changes both quantitatively (e.g., it becomes faster and more efficient) and qualitatively (e.g., different and more complex models are needed to explain it) as the child ages. The series will examine the development of reading from the perspective of the perceptual, cognitive, neurological, and linguistic prerequisites for it, specific factors in its acquisition, and factors which lead to the enhancement of the reading skill once it has been acquired.

In this monograph, Victoria Seitz focuses on the research about social class and ethnic group differences in learning to read. Unlike the acquisition of language, the acquisition of reading

depends, for the most part, on a deliberate and systematic instructional effort. Were it not for the fact that the various instructional strategies lead to uneven success in reading achievement and that, regardless of the sophistication of the instructional program, the reading skill is quite difficult for many children to acquire, reading would not have attracted (especially in the past decade) the attention it has from academic researchers, philanthropic foundations, and government agencies. Since a disproporationately large share of reading failure occurs in children from lower socioeconomic and ethnic minority groups, it is fitting that this first title in IRA's series on research in the development of reading begin with an analysis of the reliable and well documented relationship among reading acquisition, social class, and ethnicity. The attempt to explain and understand this relationship entails, of course, a consideration and analysis of every aspect of the reading process that will be discussed in subsequent issues of this series.

The success of the institute, upon which this series is based, was due to the energies and talents of many people. In addition to the dedication of the participants, faculty, and administrative staff, whose names appear elsewhere in this issue, the staff of Clayton Hall and the Department of Educational Foundations of the University of Delaware and the members of the Long Range Planning Committee of the Society for Research in Child Development contributed substantially to the planning and execution of the institute. Finally, the series itself was greatly improved by the editorial assistance of Lloyd Kline and Faye Branca of the International Reading Association.

Frank B. Murray

This IRA Series on The Development of the Reading Process is dedicated by its authors to their friend, colleague in the SRCD Interdisciplinary Institute on Reading and Child Development, and coauthor—Sandra S. Smiley of Western Washington State College—who died in December 1976 at the tragically early age of 34.

Introduction

One of the most replicable findings in reading research is that children from lower-class homes perform more poorly on measures of reading competence than do children from economically advantaged backgrounds. Such a result is obtained in studies of effects of variations in educational opportunities (Armor, 1972a, b; Coleman et al., 1966; Coleman, 1972; Jencks et al., 1972; St. John, 1970). It may also be seen in available records of schools serving predominantly low-income versus middle-income children (Educational Commission of the States, 1972; Stein, 1971; Weber, 1973) as well as in studies which have focused on the longitudinal development of individual middle- and low-income children (Abelson et al., 1974). Studies of reading skills in countries other than the United States also generally report a positive relationship between socioeconomic status and reading ability (Thorndike, 1973; Venezky, 1970).

While the relationship between social class and acquisition of reading skills is a well documented one, the explanation for this relationship is the source of considerable debate. The purpose of the present paper is to discuss alternative testable hypotheses which might account for the poorer reading performance of lower-class children. In this endeavor, it will become apparent that separate consideration must be given to the issue of ethnicity, a factor which is often confounded with social class but which must be separated from it in discussing different possible sources of reading difficulty among lower-class children.

While the focus of the paper is upon group differences, it is important to note that individual differences within groups are usually very large and that there is substantial overlap in reading skills between groups of children defined as lower- and middle-income. The correlation between socioeconomic status and reading skills increases with age, however (Coleman, 1972; Coleman et al., 1966; Jencks et al., 1972), leading to the general conclusion that advantaged socioeconomic status is a good

basis for predicting that a child will eventually learn to read. This fact and the replicability of the differences between group mean performances suggest that the sources of the difference deserve exploration.

Some Preliminary Considerations

Attempts to study the relation between socioeconomic status (SES) and reading are compromised by difficulties in at least three areas. First, there is difficulty in defining what is meant by SES. As Hess (1970) has noted, however, almost all definitions of SES include the three highly correlated indicators of family income, parental education, and family size. Regardless of disagreements on relatively technical matters concerning the significance of ethnicity, single parent families, and rural versus urban locations, it is nevertheless possible to specify relatively objectively which groups are intended when SES classifications are made.

A second, more troublesome, matter concerns how these sociological criteria of SES acquire significance as influences upon behavior of psychological interest, such as reading. Obviously, low income does not cause reading failure. Rather, low income must be a correlate of factors which do have a causative relationship to reading, and the specification of such factors—whether genetic, environmental, or both—is a matter of great interest.

A third source of difficulty is also a recalcitrant one. Efforts to measure the criterion variable of reading often founder upon disagreements in how reading skill should be defined. A clear example of this may be seen in recent efforts of the Education Commission of the States (1972) to conduct a basic assessment of national progress in reading. Two reading passages which were selected for national use with fourth grade children were analyzed for difficulty according to four different formulae, the "Spache," "Lorge," "Fog," and "Smog" scales. The four formulae yielded estimates of difficulty ranging from fourth through eighth grade level for the first passage, while a second passage was assessed as being of seventh, eleventh, or twelfth grade reading level. Clearly, the formula method can produce major disagreements regarding

the challenge inherent in a passage of reading material since, by employing one formula, one might conclude that a sixth grade minority child is reading two years below the level expected of him, and by employing another formula, that he is two years advanced in reading skills.

One solution to this problem of definition would consist of employing standardized tests, where selected passages have been administered to a well-defined, representative group in order empirically to determine the nature of the performance which can be expected of the typical child of any given age. Unlike the formula approach, the normative reference group method lacks an explicit theoretical rationale for determining in any a priori manner the difficulty level of a given passage. Nevertheless, given care in the selection of norm groups (Dunn & Markwardt, 1970), the standardization method has much to recommend it in objectifying the measurement of reading skills.

Despite these cautionary observations, it is still a general finding that economically disadvantaged children, however they have been defined, perform as a group markedly more poorly in reading, however one measures such performance, than do more advantaged children. The remaining sections of this paper will, therefore, examine some hypotheses which have been advanced to account for the poorer performance of low SES children.

On Genetic versus Environmental Explanations

Both genetic and environmental factors have been suggested to account for the relationship between SES and reading. Some theorists have suggested that a substantial proportion of the total population variance in intellectual performance is genetic (Burt, 1966; Herrnstein, 1971; Jensen, 1969, 1973). In this view, every society has some members who have low genetic potential for intellectual achievement. Such individuals tend to fail in school as children, to fail in meeting the demands of employment as adults, and thus to become concentrated in the lowest socioeconomic strata of the society, where they receive relatively few environmental benefits. According to such an explanation, genetic differences in basic

intellectual abilities, which are presumed to be adequately measured by IQ tests, are reflected in measures which are correlated with IQ, such as academic achievement, and such differences would continue to be seen even if environmental factors were made uniform for all groups.

Environmental theorists argue that low social status is more often a reflection of unjust social practices than of low inherent abilities, and they offer explanations which focus upon differences in such factors as child rearing practices, educational opportunities, and nutritional status, which are associated, in turn, with SES (see Hess, 1970, and Zigler & Child, 1973, for a review of differential experiences associated with differences in SES). Such factors are then postulated to influence the child's cognitive abilities and/or motivational state when he is confronted with the task of learning to read. Typically, environmental explanations do not specify the genetic nature of the populations for whom the generalizations are being made, and the tacit assumption thus exists that the factors being discussed would be basic causative factors of poor academic achievement for all groups of children.

It is not to be expected that the results of either genetically or environmentally oriented studies would provide evidence which would lead to an either/or choice between environmental and genetic explanations for social class differences. In extreme form, neither kind of explanation is particularly satisfying or useful. Even if a portion of the between group variance is genetic, the fact that a trait is highly heritable does not mean that its expression cannot be affected by environmental means (Hirsch, 1970; Lewontin, 1970). Thus, even a strong genetic hypothesis by no means rules out the search for environmental influences upon the expression of a trait such as reading ability. Similarly, the demonstration that a particular environmental factor, such as the use of a dialect-based instructional program, is effective in influencing reading skills requires further specification regarding the particular groups or individuals with whom the program is effective. The goal in reading research, therefore, should be to specify both the environmental events which can influence reading and the groups or individuals for whom these events are more rather than less important. That is, the

search should be for genotype-environment interactions.

It is often said that such interactions, in the form of training by aptitude interactions in experiments, have been rare. This may reflect more the state of the research rather than the state of nature. It is particularly difficult to control for initial aptitude and thus adequately to investigate training by aptitude interactions. The most convincing control would be accomplished by the use of identical twins, as has been used by Naeslund (1956) in a study reported by Vandenberg (1965). Naeslund randomly chose one member of ten pairs of identical twins to receive reading instruction by the "sight" (nonphonic) method; the remaining twin received instruction by the "sound" (phonic) method. The results showed an interesting genetic-environmental interaction effect: For twins of average intelligence, the twin who was taught by the phonics method showed better reading performance than the twin taught by the nonphonic method. For gifted twin pairs, the method of instruction made no difference. The addition of eight pairs of fraternal twins confirmed the finding of the identical twin sample. Naeslund's experiment stands both as a valuable contribution to our knowledge about reading and as a model of what we might expect to find if all our experiments were designed with both individual differences and treatment effects in mind. This is not to say that all research needs to employ identical twins but, rather, that a sensitive search for interaction effects would probably find them and that such information would be of more value than assertions simply that genetic or environmental factors are important or, worse, that one set of factors is important to the exclusion of the other.

Intervention Program Evaluations and SES Differences in Reading

Much of the research on social class differences in reading has focused upon documenting the existence of such differences. Recently, however, another major research direction has been the evaluation of the effects of special intervention programs which have been mounted with the aim of improving the performance of low-income children. Within the past decade, a number of large-scale intervention procedures have been attempted, the best known of which are

probably the Head Start program and busing programs (in which children are bused to schools not of their own SES level). A number of extensive reviews and commentaries are currently available regarding these programs (Armor, 1972a, b; Bronfenbrenner, 1974; Coleman, 1972; Coleman et al., 1966; Jencks et al., 1972; Mosteller & Moynihan, 1972; St. John, 1970; Silverstein & Krate, 1975). In general, there is a sense of pessimism in many of the reports of the effects of large scale intervention programs. A common conclusion is that such programs can do little to alter the inequalities in achievement which the children display at the time they enter the program. Such a conclusion has been interpreted by some as supporting a gentic interpretation of social class differences in cognitive abilities (Jensen, 1973).

Massive intervention programs, such as the Head Start and the busing efforts, however, have not provided an adequate test of experiential factors which might influence a child's educability, nor are they a sensitive means of searching for treatment-aptitude interactions. The methodological quality of studies of large scale programs is frequently compromised by such factors as lack of control over the intervention program which is being evaluated and high subject loss from one testing period to another. The rationale for such programs is also often weak since it is usually based upon a vague and general notion that low-income children are deprived of the cognitive stimulation which is provided to middle-class children, and that the provision of such stimulation should result in normalizing the reading acquisition process for low-income children. It is further presumed that the provision of middle-class forms of cognitive stimulation can be accomplished either by enriching the curriculum of the lower-class child's school or by placing the lower-class child directly into a middle-class school.

Any of these assumptions may be in serious error. Cultural differences may be such that the teaching procedures which would optimize the reading skills of low-income children may not be the same as those which are effective for most affluent children. For example, low-income children and children who customarily experience many frustrations in their daily lives may have a very different hierarchy of motives

from middle-class children (Havighurst, 1970; Hertzig et al., 1968; Zigler, 1971). Thus, the presumption that children enter school with a high desire to please the teacher may be correct for most middle-class children but a poor assumption upon which to base a teaching strategy for many low-income children. It is also often questionable whether attempts to introduce the salient characteristics of middle-class schooling into the lives of low-income children are successful. It is difficult to believe that busing a low-income child into a school where he feels threatened and unwelcome could provide any approximation to the warm, supportive, and stimulating environment which the middle-class child is presumed to be receiving at the same school.

A contrasting research strategy has been to examine the characteristics of ghetto schools which are as successful as middle-class schools in teaching children to read. In a naturalistic field study, Weber (1973) located four urban schools in ghetto areas of New York City, Los Angeles, and St. Louis, in which the reading achievement of apparently typical low-income, innercity children was at the national norm for the reading test employed. In addition, the average achievement level was reported as being equivalent to that for typical middle-income schools. All four of the innercity schools could be characterized as functioning as many intervention programs have been supposed to function, that is, with high teacher enthusiasm, clearly specified goals, and the liberal use of positive reinforcement for achievement. No formal comparison of the characteristics of these schools with typical middle-class schools has yet been made. It would clearly be of great interest to make such a comparison and to determine through longitudinal assessment whether the high level of achievement noted for the children tested as third graders will be maintained and extended into higher level academic and occupational success.

Longitudinal studies of Project Follow Through, a federally-funded project which provides an elementary school extension of the Head Start program, have also provided some evidence of successful intervention. The positive results reported may be due to the greater duration of the intervention project in comparison with those examined in earlier intervention studies, or they may be due to the fact that the

intervention has involved relatively fewer children and that the programs have been on a more manageable scale. Preliminary data reporting findings for the kindergarten and first grade levels (Stanford Research Institute, 1971) have been showing better academic achievement for children who have received the Follow Through program than for comparison children who have not. An intensive longitudinal evaluation of one particular Follow Through center in New Haven, Connecticut, has confirmed these findings for children at the third grade level (Abelson et al., 1974). In this study, the average reading comprehension for children who had received the intervention was significantly higher (with a mean difference of approximately three months) than for children who had attended regular innercity schools. The intervention did not, however, result in the treated low-income children's attaining an absolute level of performance at national norms. On the average, these children's reading comprehension lagged approximately half a year behind the level expected of children completing the third grade. The results are thus positive in suggesting that intervention can have a significant impact upon reading achievement, but discouraging in the magnitude of the effect. The efficacy of the Follow Through intervention appears to be less than that of the program evaluated by Weber, as previously discussed.

Experimental Studies of SES Differences in Reading

In addition to field studies of SES differences in reading, laboratory research also exists. In general, experimental studies have examined specific motivational and cognitive factors which are postulated to affect the reading process and which also appear to exist in different proportion in differing SES groups. Among such factors, for example, are differences in expectation of academic success and differences in linguistic development.

Expectations of Success

A major means by which SES could influence learning to read is through children's expectations concerning their own abilities. There is substantial evidence to indicate that

children's expectations can have a major impact upon the level at which they perform on cognitive tasks. In a number of studies examining IQ test performance, lower-class children have been found to be more sensitive than middle-class children to a number of environmental influences and to be more likely to perform below their actual ability levels (Jacobson et al., 1971; Labov, 1970; Seitz et al., 1975; Thomas et al., 1971; Zigler, 1970; Zigler et al., 1973). Studies of mentally retarded children also demonstrate that children may often perform much more poorly than would be predicted from their actual level of cognitive ability because of motivational factors arising from life history experiences such as inordinate amounts of failure relative to other children and deprivation of social reinforcement (Zigler, 1971; Zigler & Child, 1973). If being a member of a socially disadvantaged group tends to be associated with experiences which lower a child's evaluations of his abilities, it is thus reasonable to expect that the child might perform less well on cognitive tasks than his abilities permit. Several tests of this formulation with low-income children in classroom related activities are as follows.

Experimental manipulation of children's expectations. A series of experiments by Entwisle and Webster (1972, 1973, 1974a,b) has examined whether academic performance decrements may arise because of lessened expectations and whether raising children's expectations would also increase their participation in the academic activities of the classroom. In these experiments, individual adults attempted to raise the expectations of individual children through a training session. During the initial phase of the experiment, an adult engaged a group of four children in a relatively easy, classroom-like questioning session. Phase 2 consisted of a private interaction between an adult and a child selected as having been an average participant in phase 1. The session with the adult was designed to build the child's confidence in his abilities and used a task similar to that employed in phase 1, along with praise for the child's responses. The remaining three children from phase 1 received a story telling session during phase 2 designed to control for effects of attention. Phase 3 again employed the format of phase 1, presenting a new, but similar, task to the group of four children with a new

examiner who was unfamiliar with the experimental status of the children. The change in the selected child's frequency of volunteering answers in comparison with a matched control child's change was the behavior of interest.

The findings of these studies indicated that children's willingness to respond in such a classroom-like situation can indeed be raised through experimental manipulations designed to increase their confidence. In addition to this general finding, Entwisle and Webster have also manipulated the racial and SES characteristics of the adults and mixture within the groups of children with the finding that not all adults are equally effective in raising children's expectations. In particular, children whose SES was low relative to their own racial group (lower-class black, lower-middle-class white) appeared to be unreceptive to efforts of middle-class adults from the opposite race. Such children were receptive, however, to middle-class adults from their own racial group. In completing this line of research, the full range of possible racial and SES groupings remains to be explored in mapping out the characteristics of adults who are most likely to be able to serve as credible sources of expectation raising for different groups of children.

Entwisle and Webster point out that children's expectations could have significance for altering academic achievement in two ways. First, children who become more confident of their abilities may alter their behavior so as to become more effective participants in the classroom and, therefore, better learners. As Entwisle and Webster note, "children who are willing to enter into new areas, who select difficult problems instead of easy ones, and who participate frequently and actively in class discussions probably actually do learn more than those who do not" (1973, p. 124). A second mode of influence is that increases in active participation may affect teachers' evaluations so that the children are viewed more positively. A positive feedback loop may therefore be established in which the teacher's higher expectations also influence the children's expectations.

It would be of interest to test for generalization effects by adding a post-phase 3 observation session to the Entwisle and Webster procedure. Such observations would show

whether the increases in expectations produced by the experiment will generalize to the regular classroom setting in the form of the child's increased likelihood to volunteer by raising his hand. If the experimental procedure is sufficient to establish an altered behavior pattern which persists into the classroom, it should then be possible to determine whether there are associated increases in the child's learning and in the teacher's evaluations of the child.

The relative strength of different causes of expectations. In an attempt to examine the effects of academic expectations within a more complex and naturalistic framework, Entwisle and Hayeuk are conducting an extensive longitudinal study examining the relationships among a series of factors believed to influence educability (Entwisle, 1974). Although this study is not yet complete, its design and some preliminary findings are worthy of consideration.

Entwisle argues that the causative factors influencing children's academic performance form an interrelated network and that the investigation of this network of causes is not efficient using traditional modes of laboratory analysis. For example, Entwisle points out that the model depicted in Figure 1 provides a minimal representation of factors known to influence children's expectations which, in turn, are conceptualized as being a major causative factor in performance.

The strategy of employing the single laboratory experiment, or a series of small related experiments, in attempting to disentangle the extent of the different causative influences in the model shown in Figure 1 is undeniably an inefficient and laborious one. The commonly proposed alternatives, however, such as multiple regression analysis and the newer refinements such as path analysis (Werts & Linn, 1970), are also less than ideal, Entwisle argues. One common problem, for example, is that the relative weights assigned to the different causative pathways are often unstable from study to study. Entwisle believes that the relatively recent introduction of systems of structural equations as a means for describing complex patterns of causation (Goldberger & Duncan, 1973) represents a major gain in permitting a solution in the form of parameters which can be expected to remain relatively constant from one study to

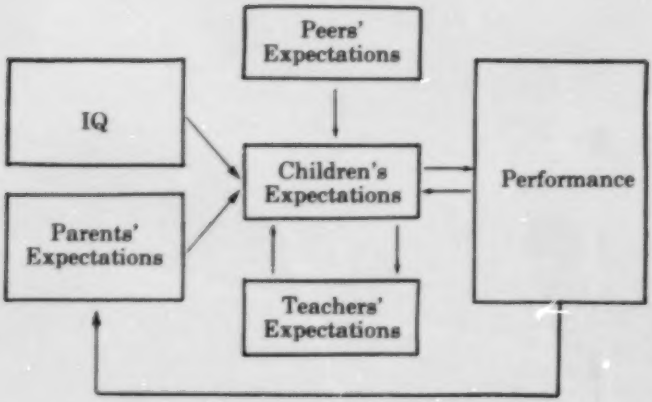

Figure 1. A schematic model of the interrelations among IQ, academic expectations, and academic performance (from Entwisle, 1974).

the next.

A relatively large sample size is a major requirement if one is to use the methodology of structural equations. Probably the only realistic way to fulfill this need in practice is to proceed as Entwisle and Hayeuk are doing, employing a longitudinal design and cumulating cases by adding new cohorts each year. In this study, measures are being taken for both lower- and middle-class children of their academic expectations, their parents' expectations for them, and their actual performances. The aim is to determine how the interrelationships among these factors change with time and how socioeconomic groups differ from one another in the nature of these interrelationships. The two SES groups in this study are drawn from two different schools: a) a middle-class, all-white school and b) a racially integrated lower-class school, 60 percent black and 40 percent white in enrollment. The average IQs of the different social class and racial groups are approximately equal at about 105 ± 5 points from year to year. The IQ scores of the children attending the lower-class school make this an unusual population, and replication of the study with more typical populations would appear to be a needed follow-up study. Nevertheless, the fact that the different

populations are of equivalent IQ is an advantage permitting easier interpretation of this initial, exploratory study.

Preliminary evidence reported by Entwisle (1974) suggests that both the lower- and middle-class children enter first grade with high expectations for their academic performance in reading and arithmetic and for their grades in the nonacademic area of conduct. Racial differences within the the lower-class sample are virtually nonexistent. The actual grades which are received by the children, however, are generally not in accord with their expectations.

For middle-class children, the difference between actual and expected grades appears to be relatively minor. Middle-class children also appear to profit from the feedback since, by the end of first grade, approximately half (53 percent for reading, 46 percent for arithmetic) are able to predict correctly what their final grade will be. The lower-class children, in contrast, generally have received grades on their first report card which were considerably lower than they had predicted. Unlike the middle-class children, the lower-class children have not improved in their ability to predict school grades by the end of the year. While the Entwisle model predicts that feedback should influence children's expectations, the data indicate that the effect is considerably more pronounced for middle- than for lower-class children. Thus, in a finding also in accord with the model, the parameter values appear to vary across different classes.

Because of the absence of an objective measure of the children's performance, however, problems of interpretation arise in dealing with these data. Entwisle reports that the lower grades received by the lower-class children do not necessarily reflect a lower standard of academic achievement, but rather may reflect a difference in grading policies. At the middle-class school, grades are assigned on the basis of the child's efforts to achieve; at the lower-class school, grades are assigned on the basis of externally defined achievement levels. This difference in policy makes it virtually impossible to consider the relationship between actual performance levels and academic expectations for these children.

The addition of objective performance data, which presumably will become available for these children, would

provide exceptionally valuable information concerning the relationship between IQ and academic achievement in different SES groups. If the objective achievement level, as measured by external means, preferably by individually administered standardized tests, paralleled the grades assigned by teachers, the question would arise as to why two groups of equivalent ability should perform so differently in school. An attempt to specify the exact nature of the differences in school treatment would thus be in order, as would the examination of the existing data to determine whether lower-class children, even those of equivalent IQ, might differ in some important manner from middle-class children in their ability to profit from the school experience (e.g., through such factors as dialect, world view, self-expectations, and the evaluations assigned them by others).

If the lower- and middle-class groups were found not to differ in academic achievement level as measured by standardized tests, this would appear to provide evidence of unvarnished social discrimination practices. In this case, the longitudinal follow up of the children would be of great interest as indicating the effects of negative adult assessments of the child's academic efforts. Given no difference in IQ or academic achievement in the first year of school, but a difference in public evaluations of academic performance, it would be predicted that the two groups might begin to diverge in true performance level in later years. Such divergence, especially if lower-class children's expectations for themselves began to decline, would indicate a major role of teachers' opinions in the network culminating in academic performance.

In sum, the availability of subsequent longitudinal information on these children on their own expectations, their parents' expectations, and their grades, plus the availability of a separate objective measure of performance, will make it possible to interpret these data much more adequately. Such information would also permit the design of informative follow-up studies. At present, the study provides a methodological example of how research which aims to estimate the relative importance of multiple causative factors in the SES-achievement relationship can profitably be pursued.

Teacher-child interactions in expectation. Another approach in examining the effects of expectations upon educability is provided in a longitudinal study by Rist (1970). Rist examined the effects of teacher expectations concerning educability by making frequent classroom observations of a group of urban black children from the time of their entrance into kindergarten through their second grade year. These observations led him to conclude that the expectations of the kindergarten teacher had a profound causative influence upon the subsequent reading achievement of the children in the class—an influence which was clearly visible two years later in the children's performance as second graders. The teacher's original judgments concerning educability appeared to have their basis in factors which were primarily related to social status rather than to cognitive abilities, with children whose dress and speech appeared middle-class being judged more educable than those whose clothes were in disrepair and whose speech was not standard English. The most tangible expression of teacher expectations was to be seen in the seating arrangement which the teacher established for the class, placing the children she deemed most educable nearest her where they were in a position to receive the most direct interaction during her teaching sessions. The consequences of such treatment, Rist observed, included greater criticism of the lesser valued children by the more highly esteemed children as well as an apparent decrease in the low status children's evaluations of their own abilities. By the end of kindergarten, the lower status children had learned less so that their assignment to seating groups by their first grade teacher and her expectations concerning their educability were based, in part, upon an objective assessment of their likelihood of achievement. The original assessment, Rist argues, thus set into motion a process which became less and less reversible.

Given the seriousness of the negative consequences Rist describes, further research should be directed towards replicating his observations. If teachers' judgments of educability are, indeed, more customarily based upon relatively superficial factors of appearance than upon the child's actual educability, then it should be possible to redirect attention and praise across all groups of children equally and

to influence markedly the final achievement levels attained by classrooms of low-income children. Pending such replication, the absence of reliability information for the observations and the fact that the research involved but a single classroom require that the results be accepted tentatively. Interestingly, however, Rist's conclusion that only a small portion of the children in innercity classrooms typically attain the favor of their teachers is corroborated in a recent analysis of the educational process in ghetto schools provided by two psychologists whose teaching experiences within ghetto schools provided them with the opportunity for extensive observation (Silverstein & Krate, 1975).

Language Development Factors

In addition to the differences in academic expectations just discussed, a number of differences in linguistic development (other than dialectal differences, which are discussed later) have been shown to be correlated with SES membership. Such linguistic differences, it has been suggested, may play an important role in the differences in reading acquisition across social classes (Entwisle, 1975).

Syntactic and semantic development. Evidence from two recent studies (Entwisle & Frasure, 1974; Frasure & Entwisle, 1973) indicates that SES differences exist during the early school years in children's ability to utilize semantic and syntactic cues in recalling verbal material and also in the pattern of growth of such abilities. Such findings are somewhat surprising, since some linguists have previously argued that semantic growth alone continues during the early school years; syntactic development has been presumed to be virtually complete by the time a child enters school (McNeill, 1970; Miller & McNeill, 1969). The Frasure and Entwisle findings suggest the need for reconsidering this conclusion since even for middle-class children there was considerable growth during the early school years in ability to employ syntactic information.

An implication of these findings is that efforts might profitably be directed at devising tasks designed to increase syntactic awareness in young children in the first three grades of school. Recognition that syntactic growth is still in the

process of occurring rather than having reached a fixed, mature level would also promote a greater sensitivity to reading errors which arise from this linguistic source and a more precise treatment of such errors. That is, it might be easy to misdiagnose a child's source of difficulty as a failure to understand grapheme-phoneme correspondence when in fact he may not recognize the sentence he is reading as a linguistically acceptable sentence and may therefore misread it.

The Enswisle and Frasure data bear only a speculative relationship, however, to reading difficulties of lower- as opposed to middle-class children, and it would be informative to test the relationship between syntactic development and reading in a direct manner. Groups of children who are high and low in ability could be identified to employ syntactic information in recalling sentences. These groups could then be compared in their ability to read sentences which varied in the complexity of syntactic structure while containing identical vocabulary which is familiar to the child. If the fact of delayed linguistic growth in the form of syntactic ability is significantly related to reading competence, children who are low in syntactic skill should show difficulty in reading sentences for which the syntax is too difficult even though the recognition vocabulary is within their ability.

Vocabulary differences. Some researchers have suggested that vocabulary differences may be directly related to the lower-class child's ability to learn and to retain information in a reading task (Gillooly & Murray, 1970; Murray & Gillooly, 1967). Using novel reading material which included invented words unfamiliar to all readers, these investigators found that prior familiarization with the novel words facilitated children's recall and recognition of information presented in the paragraphs. A practical implication of these findings is that words which are suspected to be novel ones for a particular group of children should be discussed with the children before they are used in reading materials from which the children are expected to extract other content. Again, the relationship of these findings to social class, while highly plausible, is only a speculative one. Given the potential significance of this factor, experimental tests could be

performed to compare lower- and middle-class children's ability to profit from prior familiarization with terms encountered in reading. It would also be possible to design an experiment in which both syntactic awareness and familiarity with vocabulary could be studied and their relative importance compared for both lower-class and middle-class groups of children within a single study.

Dialect-Related Problems in Reading

It is likely that the reading problems of the low-income child who also belongs to an ethnic minority may involve additional linguistic and motivational considerations beyond those which need to be considered for the low-income child who is not also a member of a socially defined minority. The present section will focus upon the special problems of the child whose native language is a dialectal variant of the language in which reading is taught and, in particular, upon the reading difficulties of the large population of black, urban-dwelling children in the United States.

The nonstandard English dialect spoken by many urban black children often has been considered an ungrammatical approximation to standard English, or as representing low-income speech without having features which are distinguishably associated with being part of the urban black ethnic population. Recent examination of black dialect, however, has led some linguists and pyscholinguists to present evidence that black English is distinguishably different from other dialectal variants of English and that it is as grammatically adequate as standard English (Baratz, 1970; Dillard, 1972; Fasold & Wolfram, 1970; Houston, 1970; Labov, 1970; Stewart, 1969, 1970). It is clear that the language of the urban black child adheres to a number of pronunciational and grammatical rules which differ from those of standard English, and it is therefore natural to inquire how this linguistic difference affects reading. (In the present discussion, the urban black child's speech will be referred to as "nonstandard English.")

Linguistic and Social Differences Related to Dialect Usage

Effects of differences in vocabulary. Dialect differences have been documented in choice of vocabulary, in pronunciation, and in grammar (Baratz, 1970; Burke, 1973; Fasold, 1969; Fasold & Wolfram, 1970; Goodman, 1965; Goodman & Buck, 1973; Labov, 1969, 1972; McDavid, 1969; Shuy, 1969; Stewart, 1969). The first of these sources of differences, lexical preferences, probably has relatively little influence upon reading. Once they become fluent readers, most children can be heard substituting preferred expressions for those which deviate from their expectations. In this technical sense, children are committing reading errors, but such substitutions usually preserve meaning and reveal good comprehension. Thus it is to be expected that fluent readers whose preferred dialect is nonstandard English might make substitutions with no more difficulty than is shown by the speaker of American English when reading materials written in British English. At the stage of reading acquisition, perceived oddities in vocabulary may affect the child's motivation to learn to read the material, but they probably do not affect the process of learning to read in any direct cognitive manner.

Effects of pronunciational differences. Phonemic differences may be a more potent source of difficulty than vocabulary differences. The pronunciational system of nonstandard English is complexly different from that of standard English, particularly in the treatment of vowel sounds and certain consonant clusters (Fasold, 1969; Labov, 1972). As one example, *told* and *toll* are homonyms for most urban black children as are *past* and *pass*. It might seem reasonable to presume that the task of learning to read text materials which contain numerous such grapheme-phoneme irregularities for the child would place an unusually heavy burden on the dialect speaking child.

Despite the face validity of such a speculation, there is evidence that pronunciation differences between standard and nonstandard English may be relatively unimportant to the reading progress at any purely cognitive level. (Social and

motivational consequences are a separate consideration which will be discussed later.) Some of this evidence comes from studies of reading acquisition in other countries. Venezky (1970) has examined the issue of whether irregularity in grapheme-phoneme correspondence might be a major factor in the failure of children to acquire reading skills, and he concludes that it is not. Finnish children, exposed to an orthography which is one of the most regular in existence, display excellent ability to decode the pronunciation of nonsense words which conform to proper Finnish spelling, yet they may concurrently display poor reading comprehension. The reading failure rate in Finland, Venezky reports, is approximately the same as that in other countries which are not blessed with such a regular orthographic system.

The finding that greater grapheme-phoneme regularity than exists in standard English provides no extra advantage does not prove that a lesser regularity would lead to no disadvantage. It does show, however, that children can tolerate at least some degree of variation from regularity to irregularity of grapheme-phoneme correspondence without showing major differences in reading acquisition. A more effective research strategy would appear to be to explore the effects of systematic variations, mapping out the differential effects of different degrees of linguistic variation upon reading acquisition, rather than simply demonstrating that a particular linguistic difference does or does not have an effect upon reading. As Weber (1970) points out, at some point conflicts between written and spoken language must cause difficulty; thus, the major research issue is to explore "the degree to which the child's spoken language and the written language can differ before the task of learning the language to be read interferes with the task of learning to read" (1970, p. 125).

Interesting, but preliminary, evidence concerning the role of pronunciational differences is provided by Melmed (1973). While Melmed found black children to have the expected difficulty in discriminating between such nonstandard English homonyms as *pass* and *past* in an auditory discrimination task, he found that they did not have difficulty comprehending the words when they were presented in written sentences in which the context provided clues as to the appropriate meaning. Melmed does not report, however,

whether the child could recognize the difference between the printed homonyms when they were provided without context. Clarification of this issue could be obtained in a study in which children were asked to generate sentences containing each printed word. Such a study would permit the determination of whether the auditory equivalence of the words has or has not affected the child's skill in deciphering the meaning of the words presented graphically and stripped of all supporting cues.

Children who speak dialects other than black English (e.g., southern, Bostonian) often learn to read without difficulty. It is thus quite possible that social factors such as prejudice or teachers' lack of knowledge of the normal speech patterns of the child may play a much larger role than perceptual and intellectual factors such as grapheme-phoneme correspondence. As Burke (1973) notes, differences in pronunciation are widespread, but they usually cause little notice from teachers unless they happen to cross social group boundaries. The Bostonian child's post-vocalic r-lessness, as in reading *cah* for *car* raises no concern from teachers that the child has misperceived the word; in contrast, the black child's *toll* for *told* could precipitate a lecture about the differences between toll booths and the past tense of the verb *to tell*. The principle is the same in both cases, i.e., that a printed word may be pronounced in many ways, yet carry the same informational content. Failure to appreciate this principle may lead to a teacher's creation of confusion or alienation in the child who is trying to read for comprehension and who is corrected for pronunciational reasons.

Effects of grammatical differences. Among those theorists who believe that dialectal differences are an important source of cognitive difficulty for children who are learning to read, it is generally agreed that grammatical differences probably provide the most important source of confusion (Baratz, 1969, 1973; Fasold & Wolfram, 1970; Stewart, 1969). Such grammatical variations include a number of morphological and syntactical differences between standand and nonstandard speech. Morphological differences include the absence of possessive and plural markers (e.g., *John dog* for *John's dog* and *three boy* rather than *three boys*). Changes in

word order and acceptable omissions or additions include such constructions as the "if-did flip" (*I asked John did he want to go* rather than *I asked John if he wanted to go*); pronomial apposition (*my mother she made me a sandwich);* and special treatment of the verb *to be,* including deletion of the copula (*John going* rather than *John is going)* and the use of the word *be* to express habitualness of action (*John be working at the mill*). Nonstandard English also frequently emphasizes negation through the use of a double negative and/or the word *ain't.* (For a more complete discussion of these and other differences, see Baratz, *1969.)* These changes and others should be seen as probabilistic rather than absolute (Labov, 1972; Seitz, 1975). That is, plural markers are only occasionally absent, while the "did he go" syntax is the strongly preferred form. In general, nonstandard English appears to show greater variation in grammatical features than does standard English.

At the cognitive level, the nature of grammatical interference could reside primarily in the fact that nonfamiliar syntax and morphological markers reduce the child's ability to predict what is coming and thus weaken valuable cues of context. The child may also have difficulty in learning that written material is supposed to reflect speech. Burke (1973) notes the existence of hypercorrections in the reading of many urban black children (*all deers look alike; she helpeded him).* Since it is unlikely that the child has ever heard the nonword *helpeded,* such hypercorrections seem to indicate that the child has learned that the printed word cannot be expected to correspond to real speech as he understands and uses it in his daily life. Presumably, the child who speaks standard English comes to value written English as a means of furthering communication. It is possible that the child who speaks nonstandard English is less likely to see such a connection between written and spoken modes of communication.

Effects of negative social evaluations of dialects. Many theorists have pointed out that the attitudes of both the child and his teachers regarding dialect may be of much greater significance in producing reading failure than cognitive factors involving the mismatch of oral language and written material. The nonstandard English speaker is unquestionably

the victim of substantial negative prejudice (Baratz, 1973; Cohen & Kimmerling, 1971; Labov, 1970; Rist, 1970; see also Ryan & Carranza, 1975, for evidence of such prejudice towards Mexican American accented speech). The speech patterns of the black urban community have been highly stigmatized, particularly by middle-class black adults who do not—in fact, usually cannot—use these speech patterns themselves and who may also be anxious to dissociate themselves from such speech (Rist, 1970; Seitz, 1975). In earlier times, black children's pronunciation was often ascribed to presumed defects in physiognomy and character ("thick lips and tongues," "lazy speech"). In present times, it is ascribed to lack of opportunity to hear English spoken "correctly" and is called "cultural deprivation." Such attitudes might possibly be altered if the speaker of standard English would attempt to learn the complex rules of grammar, pronunciation, and stress patterns of nonstandard speech. This task resembles that of learning a foreign language and is far more difficult than most speakers of standard English realize. In experiments of this nature, the efforts of urban black children in producing acceptable standard English have been markedly superior to the efforts of middle-class white children in producing acceptable nonstandard English (Baratz, 1969; Hall & Freedle, 1973; Seitz, 1975). Nevertheless, the prevailing attitude at the present time is that the child who speaks nonstandard English is either unintelligent or culturally deprived. Such attitudes, it seems reasonable to conjecture, could have major impact upon the child's learning to read.

In summary, at present there is little solid evidence regarding either cognitive or motivational effects of dialectal differences upon reading acquisition. As both Baratz (1973) and Weber (1970) have noted, it is very difficult to interpret the existing research on the relationship of black English to reading. Many of these studies have searched for evidence of dialectal interference with children who were already successful readers, thus bypassing the crucial period of reading acquisition. Often the numbers of children have been exceedingly small and experimental procedures have been loose. Thus, as Weber (1970) notes, at the present time we neither know nor do not know that dialect affects learning to read.

Proposed Means of Teaching the Child Who Speaks Nonstandard English

Teaching standard English before teaching reading. Both Bailey (1970) and Venezky (1970) have suggested that reading instruction be delayed for six months to a year while the urban black child is taught to speak standard English. The arguments in favor of such an approach are that six-year-old children are especially ready to acquire a new language (Lenneberg, 1967) and that once they have acquired spoken standard English they will find the task of learning to read it much more comprehensible. There are more arguments against than for this position, however. It is not at all certain that the acquisition of a second dialect is an easy task, and successful teaching of standard English might require considerably more time than a year (Stewart, 1970; Wolfram, 1970). The task might even be as difficult as that of teaching reading itself. It is also not clear how such teaching would be implemented and whether the goal would be the eradication of the child's existing speech or the addition of standard English. Before such a program were instituted and reading instruction were delayed, it would seem essential to know much more about the actual feasibility of teaching standard English to black children. Some special materials, which appear to be linguistically appropriate, have recently become commercially available (e.g., Feigenbaum, 1970). An experimental evaluation of the results of efforts to teach standard English with these materials would be informative.

Educating teachers concerning nonstandard English. A second means which has been suggested to improve the urban black child's reading involves educating teachers in the rules of nonstandard English (Goodman & Buck, 1973; Labov, 1969; Shuy, 1970a, b; Wolfram, 1970). The rationale is that a solid understanding of the pronunciation and grammatical rules the child is using will prevent teachers from mistakenly penalizing the child when he has not, in fact, made an error in reading. Shuy (1970a, b) is a strong advocate of using the child's existing language as a means of communication and changing such language only gradually. He suggests major changes in the education of teachers, including course work in black dialect and field work in

studying black language. As Shuy has noted, "school is a game in which one is supposed to be right as often as possible and wrong as seldom as possible" and, therefore, "the supposed nonverbal child may be silent primarily as a defense mechanism. To use the only language he knows is to risk criticism, or, at least, correction" (1970a,p. 16). Changes in teacher understanding and competence in nonstandard English might have cognitive effects in helping to prevent pedagogical errors as well as motivational effects in making the child feel less alien from the educational process. To date, the author knows of no sound empirical test of the teacher training method of improving reading; such a study would clearly be of value.

Use of specialized dialectal reading materials. Several theorists have suggested employing special instructional materials written in nonstandard English. Baratz (1973) and Stewart (1969, 1970) have been strong advocates of this approach. It is generally agreed among these theorists and others that such special materials would employ standard English orthography but nonstandard syntax. That is, no attempt would be made to visually approximate the nonstandard pronunciation (as in printing *pass* for *past),* but word order changes and other grammatical features of nonstandard English would be graphically represented.

As with other suggested methods for improving reading among black urban children, the existing evidence does not permit an evaluation of the adequacy of the dialect reading books. A number of schools have employed some form of "special materials," in recent years with no noticeable change in the children's reading. In some instances, however, such special materials have been texts in which white children have been re-drawn to appear black or in which stories written in standard English have been given a ghetto setting. Clearly an adequate test of the effectiveness of dialect readers requires that the reading materials be linguistically sound and based on an actual understanding of the dialect. It would also seem essential that the reading teacher be sufficiently well trained to be able to use such materials with comprehension. Until such minimum experimental conditions are met, it is clearly

improper to dismiss dialect readers as ineffective.

The point is sometimes made that many children who speak dialects learn to read despite such linguistic differences, that immigrant children historically have learned to read even when the school's language was totally foreign to them, and that young children in a bilingual country such as Canada learn concurrently to read and to speak their non-native language with success. Such an argument, however, does not adequately answer the question of whether children would learn more easily if they did not have to contend with linguistic differences. It also overlooks the fact that the reading failure rate among urban black children is exceedingly high. To point to the successful readers who read in spite of dialect does not tell us whether dialect has prevented a good many other children from learning to read. Thus, the possibility that dialect reading books would help deserves an adequate empirical test and should not be dismissed without such rigorous evaluation.

Comparisons among the suggested teaching methods. Comparing the three proposed methods for difficulty of actual implementation, the first method—that of teaching standard English first—would probably be easiest for teachers but most difficult for the children. The second method—permitting children to read existing materials using their own pronunciation—would probably be easiest for children but would place some burden of change upon teachers. The third method—the use of dialect readers—is similar to method two except that it involves an additional investment in special reading materials and may also meet with special problems in failing to gain teacher and parent acceptance (Baratz, 1973).

It is the author's conviction that a serious ethical problem is raised by any attempts to eradicate a child's language and that an effort to produce bi-dialectalism should be the goal if the child's language is to be changed. Research may show that the ability to learn to switch between acceptably proficient nonstandard and standard English may be an unattainable goal for most children, in which case greater consideration of alternative methods of teaching reading which do not require changing the child's language

should be considered. It presently seems likely that social and motivational aspects of dialect usage are more potent sources of interference than any purely cognitive problems of mismatch of written and spoken language. If this is indeed the case, then the first method, which attempts to change the child but not teacher attitudes, could be expected to be relatively ineffective in influencing reading performance. If methods two and three, which involve no adjustments to the child's language, were found to be equally effective, then an argument could be made for the use of the simpler method (method two) which does not require changes in instructional materials.

Other Methods for Exploring Dialect Differences in Reading

In addition to the methods just discussed, several interesting studies exist which suggest innovative means of analyzing in the laboratory the sources of reading difficulty for urban black children. One such approach would consist of an adaptation of a method used with middle-class children by Chomsky (1971) and by Read (1975) in teaching children to write before they are taught to read. If this approach were employed with urban black nursery school and kindergarten children, analyses of the errors in the children's means of spelling the words they wished to represent would provide valuable cues about the phonetic structures which the children attend to and consider important. Read argues that "a classification of English segments according to articulatory features may be a part of the knowledge of the language that a child brings to school," and that teachers "should recognize that children may wish to represent in a quite appropriate manner certain phonetic characteristics that untrained adults are not aware of, and that the basis for this representation is the child's tacit classification of what he hears." Among properties used by middle-class children in attempting to spell out words are nasality, syllabicity, backness, height, and affrication, with some features more salient than others. The properties which urban black children would consider important remain to be discovered.

Another approach, employed by Gleitman and Rozin (1973), bypasses the grapheme-phoneme correspondence issue altogether by using a syllabary. As these researchers point out, linguistic research indicates that the phoneme is not a perceptually meaningful unit and it appears also not to be a conceptual unit for children of a relatively low developmental level. The syllable, in contrast, appears to provide a good match to the child's spontaneous level of analysis of words into units, and pictographic writing appears to be a very simple conceptual system for young children. Gleitman and Rozin therefore point out that the use of pictographic representations of syllables could be expected on theoretical grounds to be relatively easy for children, and they suggest that one can introduce children to the fundamentals of reading using such an approach before transferring them to the usual phonetically based alphabetic system.

Empirical tests of the efficacy of the approach have been encouraging in the short run but discouraging in the long run. An experiment employing the method for a single semester with chronic nonreading urban black children produced positive results (Rozin et al., 1970). Children learned to read the brief pictographic syllabary, while they did not make significant progress with conventional phonetically based tutoring. In large scale testing in the public school system of Philadelphia, however, urban black children taught with a syllabary did not show any dramatic rise in reading acquisition compared with children taught by conventional methods (Gleitman, 1974). It is possible that the Gleitman and Rozin approach has not yet received adequate experimental test, since teachers apparently were not consistent in their applications of the method. In general, however, the results do not seem sufficiently encouraging to suggest that further tests of a syllabary approach be tried before testing other approaches which seem more promising. The method does, however, provide a useful laboratory technique for working with nonreading children.

Summary

The present paper has examined the nature of SES and ethnic group differences in reading and has explored some of

the proposed explanations for such differences. One immediately evident conclusion from this review is that population differences in reading acquisition and skills are so marked as to necessitate that specification of the population should routinely be provided when reporting research on reading. It cannot automatically be assumed that any phenomenon isolated in a study involving one population will be applicable to all other populations. In addition, research strategy should involve an active search for treatment-population interactions.

In considering what is known about the causes of SES differences in reading, perhaps the most evident conclusion is that the quantity of research has not yielded a commensurate quality of satisfying answers. Much of the research of population differences in reading—particularly the research involving large scale intervention programs—has been methodologically weak, although it has often been widely publicized. It is important that the existence of this research should not lead investigators to dismiss the potential significance of continued study of intervention methods or to overlook the less widely publicized, more promising research which does exist. More extensive examination of the nature of successful innercity schools is an area particularly deserving of greater attention.

Another promising area for future research is continued and more fine grained analysis of the consequences of expectations for academic success. The existing evidence suggests that experimental manipulations of such expectations might provide a basis for a particularly effective intervention procedure.

More research concerning the significance of dialect for reading is also needed, since the existing research is inconclusive. Classroom observation by persons with expert knowledge of nonstandard English could provide a basis for determining whether experimental manipulations are warranted, or whether motivational and social factors alone are sufficient to account for the generally poorer reading performance of the child who speaks a nonstandard dialect. Of the existing methods proposed for minimizing conflict between dialectal speech and reading, the easiest to test would be that of

permitting the child to read standard texts using his own preferred pronunciation. The comparison of dialects with foreign language learning is of critical theoretical importance, but remains as a research task for future investigators.

In conclusion, it is clear that in addition to examining the process of learning to read as a problem of human cognition, it is also of value to study it within its social matrix. Much has been done in recent years to elucidate the sources of reading difficulty among children from diverse socioeconomic and ethnic groups. Nevertheless, the amount of unexplained variance in reading fluency and rate remains substantial and provides a very rich field for the researcher to mine. The next decade promises to be a particularly fruitful one if the existing leads are followed.

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